





# ***Environmental Management***



In 1950, President Truman established the Nevada Proving Ground, now known as the Nevada Test Site (NTS), to perform nuclear weapons testing activities. A total of 928 atmospheric and underground nuclear weapons tests were conducted at the NTS in support of the national defense initiatives. The last nuclear test at the site was detonated on September 23, 1992 after which President George H. Bush imposed a moratorium on nuclear weapons testing.






## **What is the Environmental Management Program?**

The Environmental Management (EM) Program at the U.S. Department of Energy National Nuclear Security Administration Nevada Site Office (NNSA/NSO) addresses the legacy of contamination resulting from the effects of various historic nuclear activities conducted at the Nevada Test Site, Nevada Test and Training Range and the Tonopah Test Range. The EM Program is responsible for Environmental Restoration and Waste Management activities.

## **How is the public kept informed about EM activities?**

EM has a staff dedicated to public involvement activities which includes the development and distribution of fact sheets, publications, news releases and exhibits. EM not only keeps the public informed but also offers them the opportunity to participate in providing advice and recommendations to EM through the Community Advisory Board (CAB). The CAB is comprised of 10-15 citizen volunteers from Nevada that study EM projects and provide stakeholder feedback and recommendations.



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## **The Environmental Restoration project is responsible for what activities?**

Environmental Restoration characterizes and remediates areas where historic NNSA/NSO weapons testing activities were conducted. As a result of the testing activities, a variety of contamination occurred. In order to address contamination properly, Environmental Restoration is organized into the following subprojects based on the location of contamination: Underground Test Area, Soils, Industrial Sites, and Offsites.

## **What is the current strategy for dealing with groundwater contamination from the historic underground tests?**

Currently, there is no technology available that would allow for the cleanup of deep, extensive groundwater contamination. Knowing cleanup is not feasible, NSO's strategy is to identify contaminant boundaries and implement an effective, long-term monitoring system.



## **What happens to the buildings, facilities, and shops no longer in use that are contaminated from past NTS projects?**

Those areas, called industrial sites, must be characterized and remediated to meet specific standards. The Industrial Sites subproject is tasked with restoring and cleaning up places where hazardous and radioactive contamination still resides, such as in septic tanks, pipes, and entire buildings.

## **Is the soil near the nuclear test locations (ground zero) contaminated?**

Yes, portions of the surface area near ground zero of atmospheric tests have tested positive for contamination. Surface areas of underground nuclear tests generally are not contaminated. EM established the Soils Project to evaluate the extent of soil contamination resulting from atmospheric nuclear tests, safety experiments, and earth-cratering experiments. After the soil is evaluated, remediation activities are conducted.



## **The Waste Management program is responsible for what activities?**

Waste Management is responsible for the proper acceptance and disposal of low-level radioactive waste and on-site generated mixed low-level waste in compliance with applicable federal, state, and local laws; and for the management of transuranic and hazardous waste. Other program activities include management of transportation and coordination of rural county emergency response efforts.

## What are the different types of waste that Waste Management handles?

**Hazardous Waste** is a nonradioactive waste and is considered hazardous if it is ignitable, corrosive, reactive, toxic, or if it appears on a specific Environmental Protection Agency list.

**Low-Level Radioactive Waste** is waste that is not categorized as high-level waste, transuranic waste, spent nuclear fuel, or by-product tailings. Common types of this waste include items such as construction debris, trash, soil, and equipment. Low-level radioactive waste generated by U.S. government agencies is disposed at the Nevada Test Site.

**Mixed Low-Level Radioactive Waste** contains both hazardous waste, subject to the conditions of the Resource Conservation and Recovery Act, and radioactive waste regulated by the Atomic Energy Act.

**Transuranic Waste** contains man-made radioactive elements heavier than uranium, hence the name "trans" or "beyond" uranium. Transuranic waste currently stored at the test site is being transported and disposed at the Waste Isolation Pilot Plant in Carlsbad, New Mexico.

**Mixed Transuranic Waste** contains both transuranic radioactive and hazardous waste components.





## How is Low-Level Waste Safely Disposed?

There are four main components as to how the NTS safely disposes low-level waste. The Radioactive Waste Acceptance Program verifies that waste types, packaging, and handling procedures conform to the stringent waste acceptance criteria prior to shipment and acceptance. Risk Assessments using systematic analyses offer predictions on potential short-term and long-term risks associated with waste disposal activities. Air, groundwater, and soil monitoring serves as an early detection system in the unlikely event that contamination migrates from the immediate disposal area. The Closure Program focuses on the development of earthen closure caps for disposal sites to protect against potentially damaging environmental forces, such as erosion.



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